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RENNER OTTO BOISSELLE & SKLAR, LLP
1621 EUCLID AVENUE
NINETEENTH FLOOR
CLEVELAND, OH 44115

EXAMINER	
FISCHER, JUSTIN R	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/647,130
Filing Date: March 05, 2001
Appellant(s): DOHRING ET AL.

Don Bulson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 29, 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-8 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

(A) Listing of Prior Art of Record

4,940,503	LINDGREN	7-1990
3,663,341	VENEZIALE	5-1972

4,153,490 WERZ 5-1979

(B) Brief Description of Prior Art of Record

Lindgren discloses a method of manufacturing a decorative laminate comprising (a) spreading aluminum oxide particles on a decorative paper impregnated with melamine resin, (b) drying the thus coated paper, (c) applying an overlay paper or "covering layer of fibre material" containing melamine resin to said coated paper, and (d) pressing the assembly under pressure and heat (analogous to "final drying"). In referencing the overlay paper, Lindgren describes it is a "wet fiber layer" and the "whole fibre layer" (Column 5, Lines 10-25).

Veneziale is directed to a decorative laminate having a well-known top sheet or surface overlay that protects the underlying decorative layers. The reference further teaches that the overlay, which is a fibrous layer, can be in one of many arrangements, including mats, rovings, yarns, woven goods, and paper-sheet like (Column 2, Lines 1-8).

Werz teaches a method of manufacturing composite articles, in general, and suggests that the transparent protective layer is usually an overlay paper or a glass fiber fleece (Column 1, Lines 55-60).

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindgren. Lindgren is directed to a method for producing decorative laminates comprising spreading hard particles, such as aluminum oxide, on a decorative paper

impregnated with melamine resin, drying the thus coated decorative paper, applying a covering layer of fiber material or overlay sheet containing melamine resin, and drying the entire assembly (Column 1, Lines 16-22, Column 1, Line 65 – Column 2, Line 35, Column 2, Lines 56-58, and Column 4, Lines 50-60). As noted above, the overlay paper is described as being formed of **cellulosic fibers** and furthermore, it is referenced as a **wet fiber layer** and a **whole fibre layer**. Thus, the overlay paper of Lindgren is seen to constitute a "covering layer of fiber material".

Regarding claim 7, the overlay sheet of Lindgren, described as being formed of cellulosic fibers impregnated with melamine-formaldehyde resin.
As to claims 5 and 6, Lindgren suggests a particle loading of between 2 and 20 g/m^2, preferably 3-12 g/m^2 (Column 1, Line 67 – Column 2, Line 1).

Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren and further in view of Veneziale, Jr. (US 3,663,341, of record). As previously stated, Lindgren describes the use of a "conventional" overlay in combination with a particle treated decorative sheet in the manufacture of a decorative laminate. Lindgren further states that the overlay paper is commonly alpha cellulosic paper (Column 2, Lines 25-30). While Lindgren fails to expressly suggest the overlay sheet be in the form of a "fiber fleece", it is well known in the decorative lamination industry that top sheets or overlays can have a variety of forms, as shown for example by Veneziale, Jr. (Column 2, Lines 4-6). In this instance, Veneziale, Jr. suggests the use of a variety of fibrous webs or layers, such as mats, rovings, yarns, woven goods, and paper sheet-

like layers, as top layers in the manufacture of decorative laminates. It is well recognized that "fiber fleeces" are a common form of fibrous webs or layers and more particularly, they are commonly associated with the above mentioned forms, especially mats. Thus, Veneziale provides evidence that paper-sheet like layers (e.g. overlay paper of Lindgren) and mats (seen to be analogous to fleeces) are recognized alternatives in the decorative laminate industry. One of ordinary skill in the art at the time of the invention would have found it obvious to form the top layer of Lindgren in any of the well known fibrous assemblies recognized in the decorative lamination industry, there being no conclusive evidence of unexpected results to establish a criticality for the claimed layer form. It is emphasized that Lindgren does not place any criticality on the top sheet or surface layer being an overlay paper but rather is primarily directed to the inclusion of hard particles on at least one side of the decorative layer- this is analogous to the method of the claimed invention.

With respect to claims 5 and 6, Lindgren suggests a particle loading of between 2 and 20 g/m^2, preferably 3-12 g/m^2 (Column 1, Line 67 – Column 2, Line 1).

As to claim 8, the overlay of Veneziale is formed of glass fibers, which is recognized as a common material for a protection layer. One of ordinary skill in the art at the time of the invention would have readily appreciated the use of such a material in Lindgren absent any conclusive showing of unexpected results. It is emphasized that such an arrangement is consistent with the well-known methods of making decorative laminates and Lindgren places no criticality on the protective layer being an overlay paper.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren. As previously stated, Lindgren suggests that the melamine impregnated decorative paper is coated with particles, such as aluminum oxide. In describing the application of aluminum oxide, Lindgren suggests that the average particle size is between 1 and 80 micrometers. While Lindgren fails to expressly suggest the use of particles having a particle size of "about 125 micrometers", one of ordinary skill in the art at the time of the invention would have found such particles obvious in view of the range disclosed by Lindgren. In particular, Lindgren suggests an average particle size of as high as 80 micrometers- one of ordinary skill in the art at the time of the invention would have readily appreciated the inclusion of particles having a particle size of "about 125 micrometers" since the range of Lindgren suggests particle sizes greater than and below 80 micrometers, it being further noted that the original disclosure fails to expressly define the range suggested by "about 125 micrometers". Lastly, one of ordinary skill in the art at the time of the invention would have recognized that the particle size is dependent on the particle loading and the desired/necessary degree of abrasion resistance (function of use of decorative laminate).

Regarding claim 4, Lindgren suggests an embodiment in which the aluminum oxide particles are applied to a decorative paper (decor paper) and a conventional overlay is subsequently disposed over the treated decor paper. In describing the decor paper, Lindgren teaches an exemplary embodiment in which said decor paper has an area density or surface weight of 80 grams per square meter (Column 7, Lines 20-25 and Lines 55-60). While Lindgren fails to define the surface weight after impregnation

and coating of the decor paper with the aluminum oxide particles, it is clearly evident that the surface weight would increase due to the impregnating resin and the aluminum oxide particles. As such, one of ordinary skill in the art at the time of the invention would have readily appreciated a surface weight for the decor paper of between 140 and 150 grams per square meter, there being no conclusive evidence of unexpected results to establish a criticality for such a surface weight. It is further noted that the surface weight of the decor paper (after impregnation, coating of particles, and drying) is dependent on, among other things, the initial surface weight of the decor paper and the quantity of particles, such that it would have been within the purview of one of ordinary skill in the art at the time of the invention to form a decor paper having a surface weight of between 140 and 150 grams per square meter depending on the specific product being manufactured. Lastly, it is noted that the pre-impregnated surface weight of the decor paper of the claimed invention (Examples 1 and 2) is extremely similar to that detailed by Lindgren and further, the quantity of aluminum oxide particles applied in the claimed invention is extremely similar to that detailed by Lindgren.

(11) Response to Argument

Applicant initially argues that the paper overlay sheet of Lindgren does not constitute a "covering layer of fibre" material, primarily since said sheet does not meet the definition of a fiber material as set forth on Page 5 of the Appeal Brief. As set forth above, the paper overlay of Lindgren is formed by feeding suspended **cellulose fibers** and it is referenced as a **wet fiber layer** and a **whole fibre layer**. Thus, it is unclear how the paper overlay sheet of Lindgren does not constitute a "covering layer of fiber

material". It is emphasized that applicant has not provided a definition or description for such a layer that would define over the paper overlay sheet of Lindgren.

Applicant further argues that Veneziale offers no hint that additional overlay materials (various fibrous forms) could be successfully employed in the process of Lindgren. It is agreed that Veneziale fails to mention the use of various fibrous forms in the specific method of Lindgren; however, the reference is applied to generally recognize the use of a variety of fibrous forms in the manufacture of surface or protective layers for decorative laminates. To further evidence the use of papers and fleeces as protective layers for decorative laminates, see Werz (Column 1, Lines 55-60). Werz specifically details the common use of overlay papers and glass fiber fleeces in the manufacture of surface protective layers for laminate assemblies. Regarding the operability of such a modification, there is a reasonable expectation of success for making the protective layer of Lindgren as a fiber fleece or mat. It is further emphasized that Lindgren places no criticality on the surface layer being in the form of a paper. Additionally, as acknowledged by applicant, Lindgren suggests a possible alternative to such an assembly by describing the use of pulverized cellulosic fibers (in place of sheet structure). This description, though, does not teach away from the use of additional, continuous fibrous forms- it simply represents an alternative means of incorporating a surface protective layer.

Regarding Exhibits A and B, it is recognized that an overlay paper sheet is different from a fiber fleece. However, these fibrous forms are recognized alternatives

in the manufacture of protective layers for decorative laminates. This position is particularly evidenced by Veneziale and Werz, as set forth above.

As to claim 3, applicant contends that Lindgren teaches away from the use of particle sizes of about 125 μm. However, as noted in the rejection above, Lindgren states, "suitably, the average particle size is about 1-80 μm (Column 2, Lines 60-65). First, given an average particle size of as high as 80 μm, one of ordinary skill in the art at the time of the invention would have expected the particles to have sizes that were less than and greater than the average value. Second, the term "suitably" suggests that the above noted range is a preferred range and it is well recognized that a prior art reference is relied upon for its teachings as a whole, which includes non-preferred embodiments. Lastly, the particular size of the particles would be a function of the desired (or needed) abrasion resistance and thus ultimately depend on the intended use of the laminate assembly. Thus, the use of particles having a size of about 125 μm would have been well within the purview of one of ordinary skill in the art at the time of the invention.

Regarding claim 4, applicant argues that the teachings of Lindgren do not provide the ability to extrapolate the claimed range in regards to the area density. As set forth in the rejection above, one of ordinary skill in the art at the time of the invention would have readily appreciated an area density (after drying) between 140 and 150 grams per meter squared, particularly in view of the surface weight and particle loading detailed by Lindgren. In this instance, the pre-impregnated surface weight of the decor paper of the claimed invention (Examples 1 and 2) and the particle loading of the

claimed invention is extremely similar to that detailed by Lindgren (Column 4, Lines 40-45 and Column 1, Lines 65-68). This is extremely relevant since the area density of the coated paper (after drying) is a function of the dry or pre-impregnated weight of the layer and the particle loading. It is recognized that the amount of resin contributes to the area density; however, one of ordinary skill in the art at the time of the invention would have been able to appropriately select the amount of resin such that the dry area density satisfied the claimed invention. Lastly, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the dry area density.

In summary, Lindgren positively describes a method for producing decorative laminates comprising spreading hard particles, such as aluminum oxide, on a decorative paper impregnated with melamine resin, drying the thus coated decorative paper, applying a covering layer of fiber material or overlay sheet containing melamine resin, and drying the entire assembly, wherein the overlay sheet is formed of **cellulosic fibers** and described as a **wet fiber layer** and a **whole fibre layer**.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Justin Fischer

November 19, 2004

Conferees

Blaine Copenheaver

Steven Griffin

BLAINE COPENHEAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

Don W Bulson
Renner Otto Boisselle & Sklar
19th Floor
1621 Euclid Avenue
Cleveland, OH 44115